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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/615,903

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Takehiro Yamakawa

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09/26/2008

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EXAMINER

MCLEAN, NEIL R

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/615,903	<b>Applicant(s)</b> YAMAKAWA, TAKEHIRO	
	<b>Examiner</b> Neil R. McLean	<b>Art Unit</b> 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 May 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 7 and 9-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7 and 9-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Status of Claims***

1. Claims 7 and 9-16 are pending in this application.  
Claims 1-6, and 8 have been canceled.  
Independent Claim 7 has been amended.  
Claim 16 has been added.

### ***Response to Arguments***

2. Regarding Applicant's Argument:

In claim 7, it is clarified that the sheet determining means includes means for manually designating the manuscript sheet or the insert sheet, and means for automatically reading a mark on the sheet to determine the sheet.

#### **Examiner's Response:**

Sato does not disclose expressly wherein the sheet determining means includes means for manually designating the manuscript sheet or the insert sheet, and means for automatically reading a mark on the sheet to determine the sheet.

Edmonds discloses expressly wherein the sheet determining means includes means for manually designating the manuscript sheet or the insert sheet (printer 20 may be configured such that the user may specify, through a panel menu 28 the type and size of media in each tray;[0015]),

Art Unit: 2625

and means for automatically reading a mark on the sheet to determine the sheet (Monitor

26 may include sensors for ... detecting the type of media in each tray).

Edmonds & Sato are combinable because they are from the same field of endeavor of image processing; e.g., both references disclose methods of controlling document insertion and status updates.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have an image sensor/reader which can differentiate between a copy sheet and a manuscript sheet.

The suggestion/motivation for doing so would be to avoid for instance, the problem that arises if multiple groups of different insertion material is to be applied, the material for each insertion group must be counted out carefully to coordinate with the preselected number of collated copy sets to be produced. In the event of a paper jam, automatic job recovery is next to impossible except to re-count all of the groups of insertion material relative to the copy sets remaining to be produced once a jam is cleared. Therefore, it would have been obvious to combine Edmond's tray sensor including media type with Sato's sheet feeding process to obtain the invention as specified in order to reduce cost and minimize attendance by an operator.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2625

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7, and 9-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al. (US 6,351,625) hereafter 'Sato', in view of Edmonds (US 2003/0161641).

Regarding Claims 1-6: (Canceled)

Regarding Claim 7: (Currently Amended)

Sato discloses an image forming system comprising:

an attachment including one sheet feeding unit (e.g., An original document feeder 100 is mounted on the image reader 200 as described in Column 10, lines 19-20), and image reading means (e.g., The image of the original is read out by a scanner unit 104 as described in Column 10, lines 31-32) for feeding a manuscript sheet and an insert sheet (e.g., sheets having images formed thereon and special sheets such as cover sheets in alignment into a single bundle of sheets without requiring a complicated operation by an operator, and with improved productivity as described in Column 1, lines 57-63) for reading an image on the manuscript sheet and the insert sheet fed from the sheet feeding unit; and

an image forming apparatus main unit (As shown in FIG. 1, the image forming apparatus according to the present embodiment is comprised of an image forming apparatus main body 10 as described in Column 10, lines 14-16) attached to the attachment and having image forming means (e.g., The sheet on which the toner image has been transferred is conveyed to a fixing unit 117, and the fixing unit 117 fixes the toner image to the sheet with heat and pressure as described in Column 11, lines 25-27) for forming the image on a copy sheet

wherein at least one of said image forming apparatus main unit and said attachment includes sheet determining means (The original document feeder controller 101 controls the operation of the original document feeder 100 based on a command from the CPU circuit block 150 as described in Column 13, lines 13-19) for determining whether a sheet fed from the sheet feeding unit is the manuscript sheet or the insert sheet, and reading control means for controlling the image reading means to read the image only when the sheet determining means determines that the sheet is the manuscript sheet (The program code or device which performs what is described in Column 3, lines 35-60); The conveyance path means conveying the special sheet fed from the special sheet feeding means to the receiving means, and controlling the post processing means to store the transfer material and the special sheet together in page order in the receiving means, by causing the special sheet to be temporarily halted on standby on the conveyance path means, and thereafter causing the special sheet and the transfer material to be conveyed to the receiving means and stored therein in page order).

Sato does not disclose expressly wherein the sheet determining means includes means for manually designating the manuscript sheet or the insert sheet, and means for automatically reading a mark on the sheet to determine the sheet.

Edmonds discloses expressly wherein the sheet determining means includes means for manually designating the manuscript sheet or the insert sheet (printer 20 may be configured such that the user may specify, through a panel menu 28 the type and size of media in each tray;[0015]), and means for automatically reading a mark on the sheet to determine the sheet (Monitor 26 may include sensors for ... detecting the type of media in each tray).

Edmonds & Sato are combinable because they are from the same field of endeavor of image processing; e.g., both references disclose methods of controlling document insertion and status updates.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have an image sensor/reader which can differentiate between a copy sheet and a manuscript sheet.

The suggestion/motivation for doing so would be to avoid for instance, the problem that arises if multiple groups of different insertion material is to be applied, the material for each insertion group must be counted out carefully to coordinate with the preselected number of collated copy sets to be produced. In the event of a paper jam, automatic job recovery is next to impossible except to re-count all of the groups of insertion material relative to the copy sets remaining to be produced once a jam is cleared. Therefore, it would have been obvious to combine Edmond's tray sensor including media type with Sato's sheet feeding process to obtain the invention as specified in order to reduce cost and minimize attendance by an operator.

Regarding Claim 8: (Canceled)

Regarding Claim 9: (Previously Presented)

Sato further discloses image forming system according to claim 7, wherein said sheet determining means includes operation means for selecting (The sheet set sensor 910 detects whether a special sheet or sheets are set on the tray 901 of the inserter 900 or not as described in Column 16, lines 54-56) the manuscript sheet and the insert sheet among the sheets fed from the sheet feeding unit (The inserter pre-sheet-feed operation in the step S4 of FIG. 23 is described with reference to FIG. 27, which is a flow chart showing the process of the inserter pre-sheet-feed operation in the step S4 of FIG. 23).

Regarding Claim 10: (Original)

Sato further discloses the image forming system according to claim 7, wherein said attachment includes a sheet discharge unit for discharging the copy sheet with the image formed by the image forming means (The sheet discharged from the printer 300 is fed to the folding unit 400. The folding unit 400 performs a folding operation to fold the sheet in the form of Z. For example, when the sheets have a A3 size or B4 size and execution of the folding operation is designated, the folding unit 400 performs the folding operation. Otherwise, the sheets discharged from the printer 300 are passed through the folding device 400 as they are, and fed to the finisher 500. An inserter 900 is provided in the finisher 500 to feed special sheets such as cover sheets to be inserted into sheets having images formed thereon as described in Column 12, lines 55-65).

Regarding Claim 11: (Original)

Sato further discloses image forming system according to claim 7, wherein said attachment includes image data conversion means for reading the image on the manuscript sheet and converting the image into image data (As shown in FIG. 4, the image signal controller 202 includes an image processing block 203 that converts the analog image signal from the image reader controller 201 into a digital signal, and performs various processing on this digital signal).

Regarding Claim 12: (Original)



Art Unit: 2625

Sato further discloses an image forming system according to claim 7, wherein said attachment includes copy sheet feeding means for feeding the copy sheet to the image forming means (e.g., A sheet is fed from a cassette 114 or 115, a manual paper feed unit 125 or a double-faced conveyance path 124. The fed sheet is conveyed to a space between the photosensitive drum 111 and a transfer unit 116 as described in Column 11, lines 15-24).

Regarding Claim 13: (Original)

Sato further discloses an image forming system according to claim 7, wherein said sheet feeding unit includes a sheet feeding tray for receiving the manuscript sheet and the insert sheet, and sheet separating means for separating the manuscript sheet or the insert sheet one by one (The branch A constitutes a branching point from a conveyance path which conveys sheets from the entrance roller pair 502 to the conveyance roller pair 503 as described in Column 15, lines 3-6).

Regarding Claim 14: (Original)

Sato further discloses an image forming system according to claim 7, wherein said attachment includes a copy sheet discharge unit for discharging the copy sheet with the image formed by the image forming means (The originals are guided along a curved path to be conveyed from the left onto a platen glass 102, and then through a moving original reading position to the right, and subsequently discharged to an external original discharging tray 112 as described in Column 10, lines 28-29), an insert sheet

Art Unit: 2625

conveyance path for guiding the insert sheet fed from the sheet feeding unit to the copy sheet discharge unit, a manuscript sheet discharge unit for discharging the manuscript sheet fed from the sheet feeding unit, and a manuscript sheet conveyance path for guiding the manuscript sheet fed from the sheet feeding unit to the manuscript sheet discharge unit. (In step S702 it is determined that the finisher start signal ceased to be generated, judging that the image formation in the printer 300 has been finished, the process proceeds to step S706, where the process waits until all the sheets are discharged onto the stack tray 700. When all the sheets have been discharged, the process proceeds to step S707 to stop the flapper 511, followed by terminating the present process as described in Column 24, lines 30-37).

Regarding Claim 15: (Original)

Sato further discloses an image forming system according to claim 7, wherein said attachment includes a copy sheet discharge unit for discharging the copy sheet with the image formed by the image forming means, and a common conveyance path for guiding the manuscript sheet and the insert sheet fed from the sheet feeding unit to the copy sheet discharge unit (The program code or device which performs what is described in Column 3, lines 35-60; The conveyance path means conveying the special sheet fed from the special sheet feeding means to the receiving means, and controlling the post processing means to store the transfer material and the special sheet together in page order in the receiving means, by causing the special sheet to be temporarily halted on standby on the conveyance path means, and thereafter causing the special

Art Unit: 2625

sheet and the transfer material to be conveyed to the receiving means and stored therein in page order).

Regarding Claim 16: (New)

Claim 16, is rejected for the same reason(s) as Claim 1.

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Conrad et al. (US Patent 5,272,511) discloses a sheet inserter that inserts special insert sheets into a continuous stream of sheets by overlaying the insert sheets with a corresponding sheet in the continuous stream of sheets. The insert sheet overlaying the corresponding sheet in the continuous stream of sheets is then conveyed with the corresponding sheet to a final destination where the sheets can be compiled into a stack.

### ***Examiner Notes***

6. The Examiner cites particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested that, in preparing responses, the applicant fully considers the

Art Unit: 2625

references in its entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or as disclosed by the Examiner.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Neil R. McLean whose telephone number is (571)270-1679. The examiner can normally be reached on Monday through Friday 7:30AM-4:00PM EST.

Art Unit: 2625

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on 571.272.7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Neil R. McLean/  
Examiner, Art Unit 2625

/David K Moore/  
Supervisory Patent Examiner, Art Unit 2625

Application/Control Number: 10/615,903  
Art Unit: 2625

Page 13